

## New American Sarcophagidae (Diptera)<sup>1</sup>

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The new forms described below were all encountered in materials received for study and identification during the past several years.

### ERUCOPHAGA, n. gen.

This genus, as based upon the type species, *E. triloris*, described below, closely approaches the general habitus of *Coma-sarcophaga*, but differs in a number of pertinent characters among others as follows: arista long plumose on basal half or more; outer verticals strong; male front wider, subparallel from antennal base to vertex and bearing one pair (sometimes two) proclinate orbital bristles; ocellars weak to vestigial; propleuron setose; three lateral scutellar bristles, no apicals; etc.

#### *Erucophaga triloris*, n. sp.

Male.—Front subequal to eye width; head pollen white to subsilvery and dense from vertex to cheek groove except on facialia which are blackish and setose about to middle; frontals in a single row extending to antennal base; parafrontal with only a few scattered black hairs on outer half which continue downward in an irregular row on parafacial (none approaching bristle-size); frontalia deep velvety brown, not quite equal to parafrontal width; antenna black, third segment tinged with red basally and scarcely one and one-half times longer than shining black second segment; proboscis short, palpus red; cheek one-third eye length; occiput gently convex, gray pollinose, with two rows of post ocular cilia and mostly black-haired below.

Thorax with dense pale cinereous pollen, marked above by three black vittae, complete at suture and middle one extending on scutellum; latter bearing a pair of reclinate discals; postnotal slope setose; postsutural dorsocentrals 4 (anterior 2 well devel-

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oped); presutural acrostichals not differentiated, prescutellar pair large: sternopleurals 3; intraalar 2 (none near suture); anterior spiracle fringed with black scales. Legs black; mid femur without ctenidia, mid tibia with 2 anterodorsal bristles; hind tibia not villous; claws and pulvilli shorter than last tarsal segment. Wing gray hyaline; costal spine absent; third vein setulose less than halfway to small cross vein; calypters opaque white.

Abdomen black, grayish pollen above interrupted by three changeable black vittae effecting a tessellated pattern when viewed in opposite angles; third segment with 1 pair of median marginals and 2 or 3 lateral marginals, anal segment with a complete margin row, no discals; first genital segment convex and largely blackish above, second segment smaller, wholly red with a vestiture of coarser black hairs; forceps red, long and slender, bowed forward from base and tapered to a narrow rounded apex; accessory process nearly as long as forceps emarginate beyond middle on outer side and widest before the rounded apex; slender elongated penis stalk yellow, curved forward from base and extending between claspers, where the penis suddenly enlarges into an articulated segment, bearing an apical pair of slender inwardly curved processes (forming a nearly complete circle as viewed from the rear), in front of which a much shorter and simple pair of hornlike appendages which are much less conspicuous in profile; on the anterior apical extremity, the penis bears a black lobe sclerotized and shiny on hind side, softer textured and beset with recurved spinose hairs at middle in front; fifth sternite with a median V-shaped excision, lobes red and thickly clothed with black hairs.

Female.—Similar to male excepting normal sexual differences; genital orifice vertical and subslitlike, margined with stout closely set bristles.

Length, 9.5–11 mm.

Holotype male and allotype female, reared at College Station, December 6 to 12, 1961 from a parasitized larva of *Agathymus neumogeni* (complex), collected at Clifton, Greenlee County, ARIZONA, by Kilian Roever. Paratypes: 6 males and 1 female,

same data as type; 1 female, "Sycamore Cany. 7 mi. N.W. of Payson, Arizona, 19 Oct., 1961, Kilian Roever, host *Agathymus baneri*," and 1 female, "Davis Mts. 3 mi. W of McDonald Observatory, Jeff Davis Co. Texas, 14 Oct., 1961, Kilian Roever, host *Agathymus florenceae*."

**Senotainia arenicola, n. sp.**

Similar to *S. litoralis* Allen but the abdomen is wholly red, arista thickened to tip with penultimate segment over twice longer than wide and outer genital forceps or accessory process tapering to a narrowly rounded simple tip.

Male.—Front wide, at vertex 0.38 of head width, slightly narrower at antennal base and face moderately diverging downward; parafrontal and parafacial with heavy pale grayish white pollen on pale background, cheek and occiput darker and with thinner cinereous pollen; frontal rows strongly convergent from vertex to mid front, thence nearly contiguous to antennal base; two pairs of weak orbitals situated high up on bare parafrontal; inner and outer verticals short but distinct; ocellars divaricate; antenna reddish brown, third segment scarcely twice length of second; bare black arista pale-tipped, second segment moderately elongated and slightly widened apically; parafacial broad and apparently bare; vibrissae short and approximated with tips decussate; facialia bare; cheek narrower than parafacial; proboscis subequal head height; palpus slender, yellow; eye large, extending to or slightly below vibrissal level.

Thorax pale gray pollinose, marked dorsally with four narrow poorly defined dark vittae; acrostichal 0, 1; dorsocentral 1, 3; presutural 1 (outer); scutellum with 2 lateral and 1 equally strong decussate apical pair. Wing clear, veins including costa pale yellow, third bearing one minute seta near base; calypters opaque white. Legs black, mid tibia with one anterodorsal bristle; claws and pulvilli longer than last tarsal segment.

Abdomen predominantly red, lightly dusted above with changeable pale pollen which in favorable view extends to hind margin on last three segments; median marginals and marginal laterals on segment three, a marginal row on last; hypopygium red,

largely retracted; forceps black, prongs separated apically but nearly contiguous, tapering to blunt tips; accessory process yellow, basal three-fifths or more inflated, thence sharply reduced in width and gently bowed toward apex of forceps; shiny reddish lobes of fifth sternite moderately exposed, clothed with a vestiture of fine black hairs.

Female.—Similar to male except for usual sexual differences; genitalia retracted within anal orifice, exposed part of first segment glabrous and bowed ventrad.

Length, 5.5–7 mm.

Holotype male, Sand Dunes, Medora, KANSAS, July 4, (R. C. Smith). Allotype female, "Kas. May 23."

### ***Euphytomima caesia*, n. sp.**

Allied to *E. nomiivora* James, but at once distinguished in having the entire upper surface of the abdomen dusted with bluish gray pollen and the anal abdominal segment wholly black in ground color.

Male.—Head pollen subsilvery; front at vertex 0.51 of head width, narrowed to 0.42 of same at lunule; frontalia densely pollinose, nearly full width of front at vertex; short frontal bristles in a single row on outer margin of frontalia stopping at antennal base; two orbitals, one proclinate and one reclinate, situated high up on parafrontal; latter sparsely black setose on inner margin; ocellar triangle with several pairs of proclinate bristly hairs; bare parafacial wider than well depressed clypeus; epistoma narrowed and moderately prominent in profile; vibrissae short and weak, distinctly above oral margin; facialia bare; antenna black, extending about to lowest third of face, second segment scarcely shorter than third; black arista micropubescent, thickened and tapered almost to middle, both basal segment short; proboscis not quite equal to head height; palpus yellow to brown, rather long and slender with tip slightly swollen; cheek largely ventral but its profile width nearly one-fifth eye length; occiput slightly convex, clothed with a sparse vestiture of short black hairs.

Thorax and scutellum black, densely gray pollinose, dorsal vittae poorly defined. Chaetotaxy: acrostichal 0, 1: dorsocentral 2, 3; intraalar 2 (anterior one vestigial) supraalar 1 (middle one strong); postalar 2; notopleural 2; presutural 1 (outer); humeral 2-3; scutellum with 2 strong lateral (usually 1 or 2 weak intermediate ones) and 1 or 2 appressed but differentiated discal pairs; propleuron bare; postnotal slope sparsely haired. Legs black knees yellowish, femora and tibiae pollinose; tarsi slender, claws and pulvilli elongated. Wing clear, tinged with yellow basally; first posterior cell open far before wing tip; cubitulus obtusely angulate, usually stumpless; third vein with two to five setulae near base; costal spine vestigial; calypters opaque white.

Abdomen wholly black, narrower and longer than thorax, pollen above on last three segments not in defined cross bands but extending thinly to hind margin on each, where the dark ground color becomes more apparent; last two segments bearing a row of marginal bristles; genitalia black second segment sometimes red; fused forceps rather short, thin in profile, clothed with whitish pubescence on basal half behind tapering to a bluntly rounded apex; fifth sternite with a median V-shaped excision, preceding ones widely exposed. Female unknown.

Length, 6.5-8 mm.

Holotype: Willcox, ARIZONA, July 28, 1955, *Wislisenia*, (Butler-Werner). Paratypes: 4 males, same data as type.

### ***Opsidia vittata*, n. sp.**

Close to *O. metopioides* Allen, but at once distinguished by the distinctly vittate thorax. Other differences are listed below.

Male.—Head pollen gray with a slight brassy sheen on parafrontal and posterior orbit; front at antennal base 0.30 and at vertex 0.51 of head width; two pairs of vertical and proclinate orbital bristles; frontals in a single row extending one or two bristles below antennal base; ocellars proclinodivaricate; frontalia black, divergent upwards to vertex and at midfront level fully one-third wider than parafrontal; clypeus deeply sunk; bare, subparallel facialia nearly vertical; vibrissae on oral mar-

gin, with membrane of latter inflated and extending below eye level in profile; parafacialia bearing a distinct row of infraclinate bristles on inner margin besides one or two median rows of fine black hairs; antenna black, subequal length of face, third segment about four times length of second; bare arista thickened to middle, proximal segments short; palpus yellow, slightly enlarged on apex; cheek about one-tenth eye length.

Thorax black, with gray pollen marked by three broad black dorsal vittae, which extend to apex of scutellum; chaetotaxy as in *O. gonioides*. Wing grayish hyaline, third vein setulose nearly to small cross vein. Legs black, claws and pulvilli small.

Abdomen black with gray pollen above restricted to four smallish rounded spots on first segment and a similar submedian pair on the three following ones which are wholly gray at sides except on narrow apical margin; one pair of median marginals on segments one and two, a marginal row on two following ones but incomplete on third. Female unknown.

Length, 7 mm.

Holotype: "WEST INDIES."

#### OPSIDIOTROPHUS, n. gen.

This genus, as based upon the type species, *O. micidus* described below, may be confused with *Opsidia gonioides* with which it agrees in the following pertinent items among others: clypeus deeply sunk, facialia subparallel and nearly vertical, arista thickened to tip; vertex wide, front narrowed forward, etc. Aside from a smaller build, it differs in having a less prominent front, facial profile hardly receding, parafacials setose but without a differentiated row of bristles; other differences are listed below.

#### *Opsidiotrophus micidus*, n. sp.

Male.—Inner orbits convergent from vertex to antennal base thence parallel to cheeks; head pollen subsilvery; frontals weak, in a single row extending one or two bristles below antennal base; two or three short proclinate orbitals and two verticals;

ocellars weak; blackish frontalia dusted with gray pollen, much wider than parafrontal; antenna black, nearly reaching oral margin, third segment slender over three times length of second; arista bare, proximal segments short; parafacial microsetose; vibrissae approximated but short and barely decussate at tips; facialia bare; proboscis moderately slender, shorter than head height; palpus reddish brown; cheek largely ventral and narrow in profile; occiput flat to concave, gray pollinose and sparsely clothed with short black hairs.

Thorax and scutellum with moderately dense cinereous pollen above without defined vittae; pleura largely shining; three weak postsutural dorsocentrals; prescutellars usually differentiated; two sternopleurals; scutellum with three good-sized equal marginals. Wing clear, third vein with one small hair near base; cubitulus obtusely angulate, bearing a distinct fold; costal spine vestigial; calypters opaque white. Legs black, mid tibia with one anterodorsal bristle; claws and pulvilli short.

Abdomen shining black, with gray pollen bands more or less defined on basal half to three-fourths or more of last three segments above; bristling nearly obsolete but marginals sometimes differentiated on last two segments; small black hypopygium retracted in repose; forceps short terminating in slender blunt-tipped prongs; accessory process hardly as long as long forceps but much wider in profile; fifth sternite lobes small and retracted.

Female.—Quite similar to male; genitalia telescopically retracted within caudoventral anal orifice.

Length, 4.5–6 mm.

Holotype male and allotype female, Borego, San Diego Co., CALIF., April 27 and 28, 1955 (R. O. Schuster & M. Wasbauer). Paratypes: California—1 male, Mammoth Lake, July 29, 1940 (E. E. Kenaga). Arizona—1 female, Theba, March 2, 1955 (G. D. Butler); 1 female, Stafford, 30 mi. south, September 24, 1956 (G. D. Butler); 1 female, Canelo, June 19, 1958 (M. S. Adachi); New Mexico—2 males, "Belen, June 15, 1936."

**COLCONDAMYIA, n. gen.**

This genus, as based upon the type species, *C. falcifera*, described below, can be confused with *Emblemasoma* with which it agrees in the following characters among others: prosternum transverse; parafacial weakly haired and subequal to clypeal width; vibrissae well above oral margin; cheek fully one-half eye length; hind coxae setose on posterior margin, etc. It differs in possessing three post dorsocentrals; less strongly constricted and shorter epistoma; hairlike to vestigial ocellars; and in decisively different genitalia.

**Colcondamyia falcifera, n. sp.**

Male.—Head cinereous pollinose on black ground color; frontals in a single row lowermost one or two bristles below antennal base; parafrontal sparsely clothed with black hairs which extend downward on outer half of parafacial to cheek groove; outer verticals not differentiated; antenna black, third segment reaching a little below mid face level and scarcely twice length of second; arista short plumose to middle or slightly beyond; slender black palpus bowed upward and moderately thickened apically; proboscis short and thick, labella fleshy; back of head gently convex, gray pollinose, with four irregular rows of post-ocular cilia and longer pale pilose hairs on lower margin.

Thorax gray pollinose marked with three broad and two narrow intermediate black vittae; preacrostichals barely differentiated from adjacent hairs; prescutellars well developed; sternopleurals 3; scutellum with 3 lateral, 1 decussate apical and 1 reclinate discal pair; postnotal slope setose; propleuron bare. Wing gray hyaline; third vein setulose about halfway to small cross vein; bicurved hind cross vein joining fourth barely one-half its length from rectangular cubitulus; costal spine minute; calypters opaque white. Legs black, femora stout, middle pair with ctenidium; mid tibia with one anterodorsal bristle, hind tibia not villous, claws and pulvilli elongated.

Abdomen black, gray pollen above interrupted by three quite constant black vittae; basal segments without median marginal



bristles, last two each with a marginal row; red terminalia smallish, second segment globose clothed with only fine black hairs; genital forceps have a large red humplike protuberance at base behind beset with erect fine black hairs, between the latter and the free part of the forceps there is a deep excision in profile, thence the slender falcate forceps are fused about to middle, separated and divergent beyond, with a characteristic vestiture of intermixed dense brown pubescence and longish black hairs behind; red accessory process inconspicuous, short but very narrow and bearing one or two setae at apex.

Female.—Quite similar to male except for the usual sexual differences; first genital segment red, retracted within triangular anal orifice and overlapped ventrally by the glabrous black transversely convex apical sternite, which in lateral view extends obliquely ventrad, is truncate behind, somewhat reddish, softer textured and setose on lateral margin.

Length, 9.5–10.5 mm.

Holotype male and allotype female, Colconda Summit, Humboldt County, NEVADA, May 20, 1960 (T. R. Haig). Paratype: 1 male same data as type and 1 male Panvant, Utah, June 20, 1952 (G. E. Bohart, E. A. Cross).